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His interest started as an eighth grader when he built a solar water heater. Hence, he wanted to speak to the future planners and homeowners of the town to help them consider alternatives to the current high cost of heating and electricity practices in town.

Jeff explained that, before anything is decided, questions should be asked:

How energy efficient is our school building right now?

Could we use more efficient lighting?

Could we build a solar water heater at school for school?

Jeff explained to the students about energy efficiency (building shell and lighting), solar thermal (water and space heating), and biomass (both chip boilers and gasification). Students were able to view slides of systems Jeff has built in Asia. Students were informed about biogas, which is produced by organic materials from the kitchen or landfill.

As the material is consumed by bacteria and the bacteria dies and is replaced, methane gas is produced. This gas can then run engines to produce heat and energy. Converting waste to energy! Everyone wins!

The middle school students were also introduced to terms such as B.O.T. (Build-Operate-Transfer). This is one approach to financing and building a biomass gasification facility that converts waste to energy.

All the students were very attentive and interested and asked some great questions of Jeff.

Rhiannon White: What about wintertime with solar energy? Wouldn't there be a problem?

Jeff: Actually, temperature does not affect solar power: sunny days are sunny days! There would just be more to building the solar site to make sure cold temperatures don't damage any part of it.

Nathan French: If an energy production is bio-neutral, it isn't really changing anything. Wouldn't solar energy be better?

Jeff: Well, solar energy is the cleanest and unfortunately also the most expensive alternative. Except solar heating – solar heating is cheaper but needs a very large space to set up the array of solar panels.

Monica Newton: Are there cost concerns to this method of heating and producing energy?

Jeff: Yes, it would be a significant investment to put in the system. That is why the build-operate-transfer approach is so helpful.

Brooke Ellis: Are there concerns about converting to a different energy system?

Jeff: Certainly, there are always concerns about reliability of a new system and quality of the installation.

Jake Hubbard: How loud is the biomass gasification system that we could build?

Jeff: Not at all loud. There are fans running, but other than a hum, it's not a loud system at all.

What started out to be a 30-minute presentation turned into an interesting hour-long discussion of alternative energy solutions and their applications for our school community. There are great practical, economical, moral, and ethical reasons for our school to become self-sustaining. Check for updates in the future!



AE/MS fourth graders enjoyed RiverDay in Bristol this year. Photo: Fourth graders Scout Armstrong / Emily Bates

Students Choose From Many Workshops At RiverDay

By Jane Slayton
Principal, AE/MS

Fourth grade students from the Newfound and Andover school districts are exploding with wonderment and enthusiasm over New Hampshire because of New Hampshire RiverDay! Around 200 young explorers trekked through-out Profile Falls Park in Bristol for a day

of New Hampshire exploration, building a foundation for a year of New Hampshire studies.

Students had numerous workshops to choose from, with topics including macro-invertebrates, geology, "Becoming a Mouse," writing by the river, Project Learning Tree, winter ecology, lacrosse, Native

Students (and lucky chaperones) were enthralled by the Native American storytelling and the music. A favorite part of the day for many was hearing Stephen Standing Owl play the flute. Aura Howe, an AE/MS fourth grader, was particularly impressed by the "mouse" sound that Stephen was able to make with his flute.



Finn Weber drew this picture of a Native American during River Day.

The geology workshop was very interesting as we learned what rock types were prevalent throughout the state. Lee Wilder, the geologist, gave the AE/MS students a granite core to take back to school. Mrs. Parenteau now uses it as a paper-weight.

After more American art and music, New Hampshire fur bearers, and New Hampshire Native Americans. What a day!

The students had perfect weather for early October, with the sun peeking through from time to time. Not only did Andover students learn a lot about the state, but they also made many new friends from the different schools in the Newfound school district.

Native American storytelling, the AE/MS students came together as a group in the afternoon and explored the beautiful surroundings with Park Ranger Rockett. The ranger pointed out various trees and plants of interest and taught the students some tricks to distinguish between like species.

As students ended their day and traveled back to Andover, it was unanimous that RiverDay was a great success. Andover resident Cherie Blessing has coordinated this educational day for several years now. We consider ourselves fortunate to be included in this Newfound school district initiative.

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nhdriivingschool.com
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HOLIDAY WREATHS - 2009

Andover Elementary / Middle School PTO will be selling holiday wreaths. Profits will go toward decorating all the town buildings and K - 8 field trips.

If you would like to order a wreath, please fill out the form below and return it to the school before the Thanksgiving break. Wreaths can be picked up at the school on December 5 between the hours of noon and 3:00. Orders can also be picked up at anytime during the school week of December 7th.

All wreaths are double-faced with an outside diameter between 22 and 25 inches. Decorated wreaths have red bows, holly berries and pinecones.

Wreaths can be paid for when ordering or when you pick up. Checks can be written to Andover Elementary / Middle School.

If you have any questions, please call Jane Slayton at 735-5400.

Name: _____

Address: _____

Phone: _____

Quantity

_____ 24" Wreath, plain - \$10

_____ 24" Wreath, decorated - \$24

_____ Total wreaths ordered _____ Total amount due

I'll pick up my order: _____ during the school week.
_____ on Saturday, December 5, noon to 3 PM.